IN THE CLAIMS

Please amend the claims as indicated hereafter.

1. (Currently Amended) A communication device which communicates data in an asynchronous transfer mode (ATM) format comprising:

at least one buffer ~~(130, 158)~~ configured to receive data from a sending device ~~(52, 104)~~; and

a modulator/demodulator unit ~~(144, 150)~~ coupled to the buffer ~~(130, 158)~~ and configured to encapsulate at least one ATM cell ~~(176a)~~ into an ATM frame ~~(170)~~, the ATM cell ~~(176a)~~ having the received data, so that the ATM frame ~~(170)~~ is communicated onto a subscriber line ~~(18)~~,

such that the communicated ATM frame ~~(170)~~ has a variable transmission duration, the variable transmission duration corresponding to a number of ATM cells ~~(176a through 176n)~~ encapsulated into the ATM frame ~~(170)~~.

2. (Currently Amended) The communication device of claim 1, wherein the ATM frame ~~(170)~~ comprises a preamble ~~(172)~~, the preamble ~~(172)~~ having at least an address identifying a remote data terminal unit ~~(DTU-R, 100)~~, such that a selected one of a plurality of DTU-Rs ~~(100)~~ receives the communicated ATM frame ~~(170)~~ according to the address in the preamble ~~(172)~~.

3. (Currently Amended) The communication device of claim 1, wherein the modulator/demodulator unit ~~(144, 150)~~ is further configured to parse the received data into a plurality of data portions, and further configured to load information corresponding to each one of the plurality of data portions into a corresponding one of the ATM cells ~~(176a through 176n)~~.

4. (Currently Amended) The communication device of claim 1, further comprising a unique address identifying the communication device from a plurality of other communication devices coupled to the same subscriber line ~~(18)~~, such that when a poll ATM frame ~~(180, 186, 190 and 194)~~ having an address that corresponds to the unique address identifying the communication

device is received, the communication device communicates a response frame ~~(182, 188, 192 and 196)~~ having a duration of transmission that corresponds to the amount of data residing in the at least one buffer ~~(130, 158)~~.

5. (Currently Amended) A method for communicating data in an asynchronous transfer mode (ATM) format, the method comprising the steps of:

receiving data;

loading information corresponding to the received data into at least one ATM cell ~~(176a)~~ having a predefined size;

encapsulating the at least one ATM cell ~~(176a)~~ into an ATM frame ~~(170)~~; and

communicating the ATM frame ~~(170)~~ onto a subscriber line ~~(18)~~,

such that the communicated ATM frame ~~(170)~~ has a variable transmission duration, the variable transmission duration corresponding to a number of ATM cells ~~(176a through 176n)~~ encapsulated into the ATM frame ~~(170)~~.

6. (Currently Amended) The method of claim 5, wherein the step of encapsulating the at least one ATM cell ~~(176a)~~ into the ATM frame ~~(170)~~ further comprises the steps of:

encapsulating a preamble ~~(172)~~ into the ATM frame ~~(170)~~, the preamble ~~(172)~~ having at least an address identifying a remote data terminal unit ~~(DTU-R, 100)~~; and

communicating the ATM frame ~~(170)~~ to a selected one of a plurality of DTU-Rs ~~(100)~~ according to the address in the preamble ~~(172)~~.

7. (Currently Amended) The method of claim 5, wherein the step of loading information corresponding to the received data into the at least one ATM cell ~~(176a)~~ further comprises the steps of:

parsing the received data into a plurality of data portions having information corresponding to a respective portion of the received data; and

loading each one of the plurality of data portions into a corresponding one of the ATM cells ~~(176a through 176n)~~.

8. (Currently Amended) A method for adjusting a duration that an asynchronous transfer mode (ATM) frame ~~(170)~~ is transmitted over a subscriber line ~~(18)~~, the method comprising the steps of:

receiving data;

parsing the received data into a plurality of data portions having information corresponding to a respective portion of the received data, each one of the data portions configured to be loaded into one of a plurality of ATM cells ~~(176a through 176n)~~ having a predefined size;

loading each one of the data portions into a corresponding one of the plurality of ATM cells ~~(176a through 176n)~~ until all the data portions have been loaded;

generating the ATM frame ~~(170)~~ by encapsulating the plurality of ATM cells ~~(176a through 176n)~~ into the ATM frame ~~(170)~~; and

communicating the ATM frame ~~(170)~~ onto the subscriber line ~~(18)~~,

such that the communicated ATM frame ~~(170)~~ has a variable transmission duration, the variable transmission duration corresponding to a number of the plurality of ATM cells ~~(176a through 176n)~~ encapsulated into the ATM frame ~~(170)~~.

9. (Currently Amended) The method of claim 8, further comprising the steps of:

defining a maximum number of ATM cells ~~(176n)~~ that can be encapsulated into the ATM frame ~~(170)~~;

loading each one of the ATM cells ~~(176a through 176n)~~ with one of the plurality of data portions until the last ATM cell ~~(176n)~~ is loaded; and

encapsulating the maximum number of loaded ATM cells ~~(176a through 176n)~~ into the ATM frame ~~(170)~~, such that remaining data is communicated at a later time in a subsequently generated ATM frame ~~(170)~~ such that a duration of transmission of the communicated ATM frame ~~(170)~~ corresponds to the maximum number of ATM cells ~~(176a through 176n)~~.

10. (Currently Amended) The method of claim 8, further comprising the steps of:

defining a maximum number of ATM cells ~~(176n)~~ that can be encapsulated into the ATM frame ~~(170)~~;

loading each one of the ATM cells ~~(176a through 176n)~~ with one of the plurality of data portions until all of the data portions are loaded; and

encapsulating only the loaded ATM cells ~~(176a through 176n)~~ into the ATM frame ~~(170)~~ such that a duration of transmission of the communicated ATM frame corresponds to the number of loaded ATM cells ~~(176a through 176n)~~.

11. (Currently Amended) The method of claim 8, further comprising the steps of:

communicating a poll ATM frame ~~(180, 186, 190 and 194)~~ having an address to a plurality of remote data terminal units ~~(DTU-Rs, 100)~~, each one of the DTU-Rs ~~(100)~~ identified by a unique address; and

receiving a response ATM frame ~~(182, 188, 192 and 196)~~ only from the DTU-R ~~(100)~~ having the unique address that corresponds to the address in the poll ATM frame ~~(180, 186, 190 and 194)~~.

12. (Currently Amended) The method of claim 8, further comprising the steps of:

receiving a poll ATM frame ~~(180, 186, 190 and 194)~~ having an address from a central office data terminal unit ~~(DTU-C, 102)~~ by one of a plurality of remote data terminal units ~~(DTU-Rs, 100)~~, each one of the DTU-Rs ~~(100)~~ identified by a unique address; and

communicating a response ATM frame ~~(182, 188, 192 and 196)~~ only by the DTU-R ~~(100)~~ having the unique address that corresponds to the address in the poll ATM frame ~~(180, 186, 190 and 194)~~.